

AC Mode Operation

Introduction At present, the Coast Guard and Navy are in a transition from the DC mode to AC mode of operation. During any transition there is bound to be some glitches and unseen problems.

The following job aid was made up in a communications lab to assist with operating the DAMA unit in the AC mode. This job aid was made by observing conditions in a lab and has not been tested in the field. Any feedback from field units is highly encouraged.

Known Glitches When your DAMA acquires after preventive maintenance, or upon powering up, it will sound an audio alarm and display an information request code of AAA99. This will happen the first time you access each port.

- To clear the audio alarm you must press the audio alarm reset button or the * key.
 - To clear the display you must enter # 6 and five zeros.
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Guard Numbers It is important when entering guard numbers, to clear any previously entered guard numbers. This prevents the DAMA unit from connecting to non desired guards.

Configuration Codes Some good rules of thumb for configuration codes are as follows:

- Never have more than one port assigned the same configuration code.
 - Delete a configuration code by entering * 5 and two zero's.
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Common Guard Request Procedure

A common guard must be established for your navmacs circuit. This allows the navmacs to be polled by the NCTAMS cudixs computer.

Use the following table to connect to a common guard.

Step	Navy Keyboard Command	Keyboard Example
Select a port	*9 S E	*9 - port# - ENTER Ex: *-9-1- ENTER
Display current guard number in port	#2	#2 Note: display will show terminal base address first, then any guard numbers entered.
Delete guard number in port	*4 GGGGG E	*4 - guard # - ENTER Ex: *4 - 13001 - ENTER
Display current guard number in port	#2	#2
Enter guard number in port	*1 GGGGG E	*1 - guard # - ENTER Ex: *1 - 13001 - ENTER
Enter configuration code in port	*5 CC E	*5 - config code - ENTER Ex: *5 - 60 - ENTER
Request guard connection to net	#7 P GGGGG E	#7 - precedence - guard # - ENTER Ex: #7 - 6 - 13001- ENTER

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Two Party Request Procedure

A two party request allows you to communicate ship to ship or ship to shore.

Use the following table to connect a two party request.

Step	Navy Keyboard Command	Keyboard Example
Select a port	*9 S E	*9 - port # - ENTER Ex: *9 - 1 - ENTER
Enter configuration code in port	*5 CC E	*5 - guard # - ENTER Ex: *5 - 63 - ENTER
Request two party call	#7 P KKKKK E	#7 - precedence - terminal base address calling - ENTER Ex: #7 - 6 - 03352 - ENTER

Link Test Procedure

Use the following table to perform a link test.

Step	Navy Keyboard Command	Keyboard Example
Release port	#6	#6
Link test request	#3 L E (1-3) <u>Note:</u> 1=9.6, 2=19.2, 3=32kbps	#3 - (1-3) - ENTER Ex: #3 - 1 - ENTER

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Conference Call Request Procedure

A conference call request allows you to communicate with more than one ship or shore station at a time.

Use the following table to connect a conference call.

Step	Navy Keyboard Command	Keyboard Example
Select a port	*9 S E	*9 - port # - ENTER Ex: *9 - 1 - ENTER
Enter configuration code in port	*5 CC E	*5-guard # - ENTER Ex: *5 - 63 - ENTER
Request conference call	#8 P J T AA E Note: T AA = (1 00 for indefinite time)	#8-precedence - number of conference members excluding yourself (1-6) - time unit code - time - ENTER Ex: #8 - 6 - 3 - 2 - 10 - ENTER
Enter terminal base addresses of conference members	+KKKKK E Note: J times	terminal base address of conference member - ENTER Ex: +00152 - ENTER

Completing Call Procedure

Step	Navy Keyboard Command	Keyboard Example
Select a port	*9 S E	*9 - port# - ENTER Ex: *-9-1- ENTER
Complete call	#4 E	#4- ENTER

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Taking a Port Out of Service You may need to take a port out of service for reasons such as maintenance.

Use the following table to take a port out of service.

Step	Navy Keyboard Command	Keyboard Example
Release the current port	*6	*6 - (port release)
Select port to take out of service	*9 S E	*9 - Port # - ENTER Ex: *9 - 2 - ENTER
Indicate out of service	#5 P R T AA E Note: T AA = Indefinite	#5 - precedence # - out of service code - time code - length of time - ENTER Ex: #5 - 6 - 1 - 2 - 30 - ENTER

Restoring Port to Service

Use the following table to restore a port to service.

Step	Navy Keyboard Command	Keyboard Example
Select port to be restored	*9 S E	*9 - Port # - ENTER Ex: *9 - 2 - ENTER
Enter port baseband configuration code	*5 +CC E	*5 - port configuration code - ENTER Ex: *5 - 1 - 01 - ENTER

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Disconnect Conference Call

There are two ways to disconnect from a conference call.

- To end an indefinite length call, each conferee must enter a call complete command individually. **(#4 - ENTER)**
 - If length of call was defined then all members are disconnected when time has expired.
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Cancel Call in Que.

If the person you're contacting is busy your call will go into que.

You cancel a call in que by entering **(#9 - ENTER)**

Call Wait

If someone is trying to call you and you're busy you can:

- terminate a call for a more important call **(#4 - ENTER)**
 - remove the call waiting indication **(#0)**
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Information Request & Reports

Use the following table to enter the commands for responding to an information request.

Step	Navy Keyboard Command	Keyboard Example
Information report	#6 NNNNN E Note: (00000-16383)	#6 - information report - ENTER Ex: #6 - 00034 - ENTER

To clear a request without sending a report enter zeros in the five digit information report.

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INDEX		KEYBOARD COMMANDS			
<u>Call Request</u>					
Cancel	#9	*0			Lamp Test (hold 0 to view)
Complete	#4	*1	GGGGG E		Enter Guard Number
Conference	#8	*2	L E		Paging (1-3)
Guard	#7		+ UUUUU E		+ Paged User (L times)
Paging	*2	*3	M		Link Test Results (1-4) (hold M to View)
Two-Party	#7	*4	GGGGG E		Delete Guard Number
		*5	+ CC E		Configuration Code Display
<u>Code</u>					+ Entry (01-99)
Configuration	*5	*6			Port Release
Home Chnl Freq	*7	*7	+ FC E		Home Channel Frequency Code Display
					+ Entry (01-32)
<u>Display</u>		*8			Queue Time Display (hold 8 to view)
Clear	#0	*9	S E		Select I/O Port (1-4)
Config Code	*5				
Freq Code	*7				
Guard Number	#2	#0			Recall
Queue Time	*8	#1	E		Status Report B
		#2			Guard List Display
<u>Guard Number</u>		#3	L E		Link Test Request (1-3)
Delete	*4	#4	E		Call Complete
Display	#2	#5	P R T AA E		Out-of-Service (0-9)
Enter	*1				(T AA = 1 00 for indefinite time)
		#6	NNNNN E		Information Report (00000 - 16383)
<u>Maintenance</u>		#7	P KKKKK E		Two-Party Call or
Lamp Test	*0	or	P GGGGG E		Guard Request
Link Test	#3	#8	P J T AA E		Conference Call Request
Link Test Results	*3				(T AA = 1 00 for indefinite time)
Out-of-Service	#5		+ KKKKK E		+ Conference Members (J times)
		#9	E		Cancel Call
<u>Port - I/O</u>					
Release	*6				
Select	*9				
<u>Report</u>					
Information	#6				
Status B	#1				

Where	AA	=	Time Magnitude (2 digits) (00-59)	M	=	Link Test Results (1 = erased symbols, 2 = bit errors, 3 = missed acquisitions, 4 = bits tested)
	CC	=	Configuration Code (2 digits) (01-99)	N	=	Information Report No. (5 digits) (00000-16383)
	E	=	ENTER Pushbutton	P	=	Call Precedence (1, 2, 3, 4, 5, 6) - USE 6
	FC	=	Frequency Code (2 digits) (01-32)	R	=	Out-of-Service Code (0-9)
	G	=	Guard Number (5digits) (13000-16382)	S	=	MUX I/O Port (1-4)
	J	=	No. of Conference Members Desired (1-6)	T	=	Time Units Code (1 = Sec, 2 = min, 3 = hr, 4 = days)
	K	=	Terminal Base Address (5 digits)	U	=	Terminal Port Address (5 digits) (00004-12999)
	L	=	Number of Users Paged (1-3) or Link Test Request (1=9.6, 2=19.2, 3=32ksps)			

AC Mode Information Request Codes

AAA77	Your terminal does not exist in the database	AAA89	Requested party has no compatible baseband device
AAA78	Request queue is currently full	AAA90	None of the users requested is available
AAA79	Queued call canceled; connection is no longer possible	AAA91	Connection would cause contention
AAA80	Enter a configuration code and try again	AAA92	Not all requested parties could be connected
AAA81	Required data rate can't be supported	AAA93	Other Link Test in progress
AAA82	Requested party unknown. Check Call Directory and try again	AAA94	Unable to connect parties from different channels
AAA83	Cannot add users to this guard	AAA95	DASA requests are reserved for guards only
AAA84	Cannot add a guard to your existing call	AAA96	No DASA channel available
AAA85	Requesting party is not authorized to activate this guard	AAA97	Requesting party is already connected to a DAMA time slot
AAA86	Requesting party is not a member of this private guard		
AAA87	Not used	AAA98	Too many guards specified in the request
AAA88	Requesting Party's baseband device is not compatible with this guard	AAA99	(Reserved for Home Channel Change at the terminal)

DIFFERENCE BETWEEN AC AND DC MODE MUX COMMANDS

Key-Strokes	FNTN Display	AC Mode Functions (for commands - See Over)	DC Mode Functions (Unless Indicated below - See Command Over)
*0	-	Lamp Test	Lamp Test
*1	A	Enter Guard Number	Information Request (*1 + UUUUU + E + IR + E) (*) where (IR = 01-99)
*2	E	Paging	Extended Transmit (*2)
*3	B	Link Test Results	Link Test Results
*4	C	Delete Guard Number	KG Memory Select (*4) Display (*4 + N + E) (*) (N = 0-7)
*5	D	Configuration Code Display/Entry	STG Control (*5 + 1 + E) (*) Yes (*5 + 0 + E) (*) No
*6	-	Port Release	Port Release
*7	0	Home Channel Display/Entry	Home/CCOW Frequency (*7 + 0 + FC + E) Home (*7 + 1 + FC + E) CCOW
*8	-	Queue Time Display	Not Used
*9	F	Select I/O	Select I/O
#0	-	Recall	Not Used
#1	1	Status Report B	Zeroize (#1 + UUUUU + E + UUUUU + E) (*)
#2	2	Guard List Display	Guard List Display
#3	3	Link Test Request	Link Test Request
#4	4	Call Complete	Call Complete
#5	5	Out-of-Service	Channel Controller Primary (#5 + 0 + E) (*) Alternate (#5 + E) (*)
#6	6	Information Report	Information Report (#6 + [00000-00255] + E)
#7	7	Two-Party or Guard Request	Party Call (#7 + P + CIN + E)
#8	8	Conference Call Request	Frame Format & Frequency (#8 + 0) Display (#8 + C + FC + HHH + E) (*)
#9	9	Cancel Call	KG Time (#9) Display (#9 + D + HR + MN + E) (*)
			(*) DC Channel Controller Commands

Where	C	=	DAMA Channel Number (1-9)	HR	=	Hour (Zulu) (2 digits) (00-23)
	CIN	=	Circuit ID Number (5 digits) (10006-10500)	IR	=	Information Request (2 digits) (01-99)
	D	=	KG Day of Week (0-7)	MN	=	Minutes (2 Digits) (00-59)
	E	=	Enter Pushbutton	N	=	KG Memory (0-7)
	FC	=	Frequency Code (2 digits) (01-32)	P	=	Frequency Switching (5 = Frequency SW, 6 = non-Frequency SW)
	H	=	Frame Format (3 Characters) (100-FFF)	U	=	User ID Number (5 digits) (00004-08191)

AC MODE PRECEDENCE DISPLAY

- 0 A CCOW master frame has not been received or decoded
- 2 RCCOW Precedence: FLASH OVERRIDE*
- 3 RCCOW Precedence: FLASH*
- 4 RCCOW Precedence: IMMEDIATE*
- 5 RCCOW Precedence: PRIORITY*
- 6 RCCOW Precedence: ROUTINE*
- A A CCOW has not been received or decoded for six consecutive frames
- D RCCOW time slot is dedicated to a specific user
- E Transmit Inhibit
- F Non-TDMA Operation

* Number also indicates the MUX is operational, receiving, and decoding CCOWs